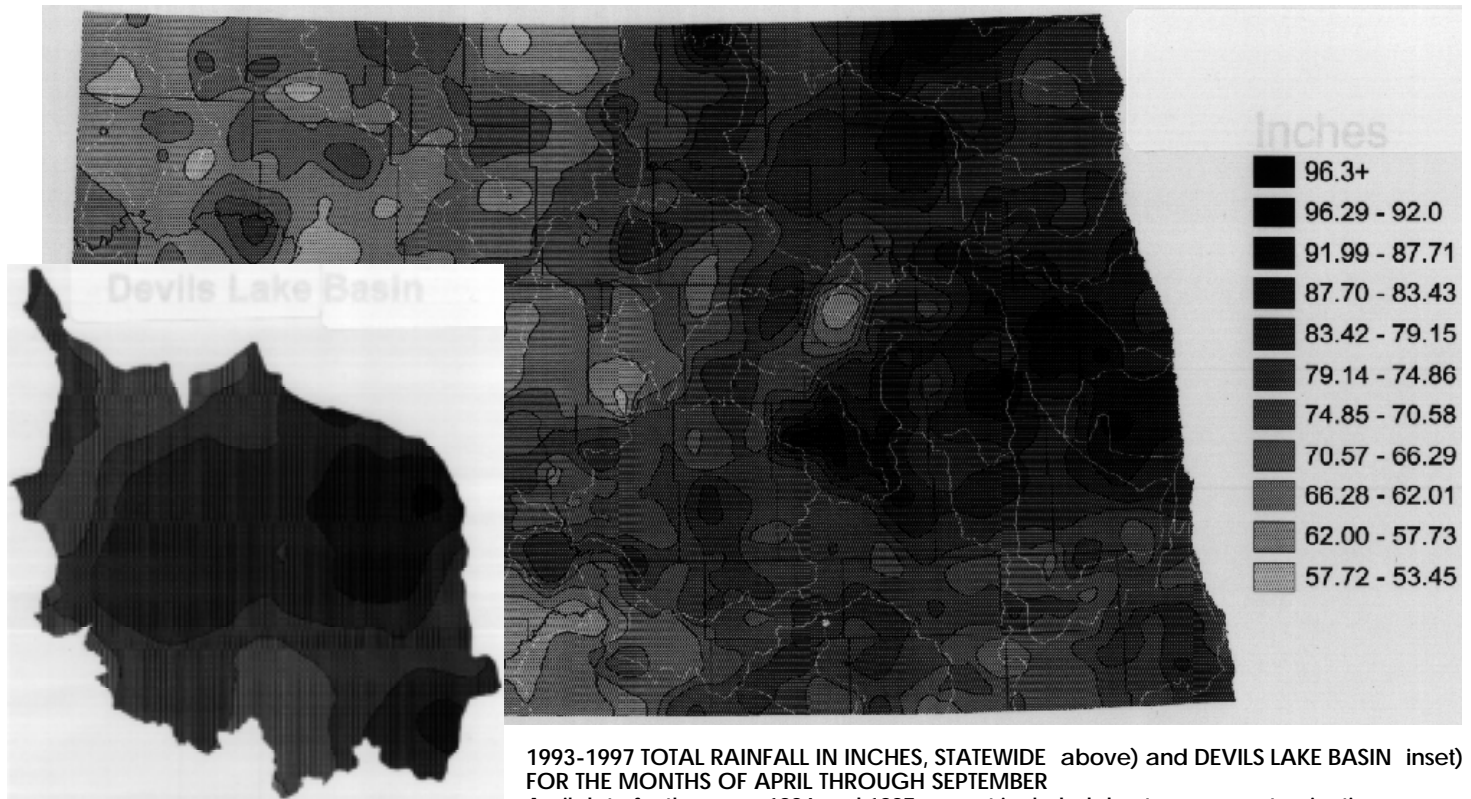




THE ATMOSPHERIC RESERVOIR

Examining the Atmosphere and Atmospheric Resource Management

Five-year rainfall a reflection of lake woes



by Bruce Boe and Darin Langerud

Since 1977, the Atmospheric Resource Board (ARB) has maintained a cooperative precipitation network throughout the state. The 800+ volunteers participating in the annual growing season data collection efforts have provided the most detailed rainfall information available.

To gain a feel for how excess summer precipitation has contributed to the increased elevation of Devils Lake, the ARB network totals for 1993 through 1997 were plotted. (The data for April of 1994 and April of 1997 are not included because significant precipitation fell as snow, which is not captured efficiently by

the smaller-orifice ARB gauges.)

The Devils Lake Basin boundaries are plotted on the inset map. The five-year total within the basin ranges from about 70.5 inches to 92 inches (110-144 percent of average). Much of the basin received totals nearer the higher values. The effects of the unusually heavy precipitation are of course exacerbated because there presently is no outlet.

Examination of the map shows other areas where there has been even greater precipitation. A large area south of the Devils Lake Basin has been the recipient of as much and up to eight inches more rainfall. The prairie potholes are full, and

ground water tables have risen to near the surface in many areas. This has manifested itself not only as excessively wet field conditions, but as wet basements, failed septic systems, and "new" wetlands.

Seasonal precipitation maps for each year, and for each month during the 1998 growing season can be found at the Internet address below. ■

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